
3d analyze

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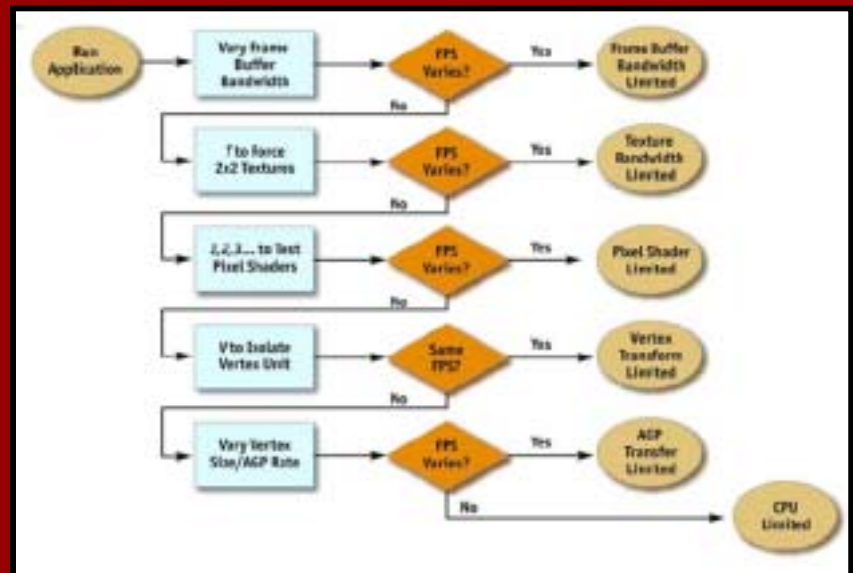
2004.12.05

Spirit of Flame
3D RealTime Graphics Programming Study

Kas

-
- - **(bottleneck) ?**
 -
 - , /
 -
 - - Numega - TrueTime
 - Intel - Vtune
 - Nvidia - NVPerfHUD
 - Microsoft - Pix

- 가



3d Analyze

- **3D Analyze**

- (cf. NVperfHUD - <http://www.nvidia.com/page/nvperfhud.html>)
- Tommti Systems (<http://www.tommti-systems.com>)
- <http://www.tommti-systems.com/3d-analyze/> 가

- /
 - Direct3D, OpenGL ,
 -
 -
 -



- 1.
- 2.
- 3.

5

Spirit of Flame
3D RealTime Graphics Programming Study

Kasa

(1)

- **disable texture**

- disable texture
- disable texture, texture

(?)

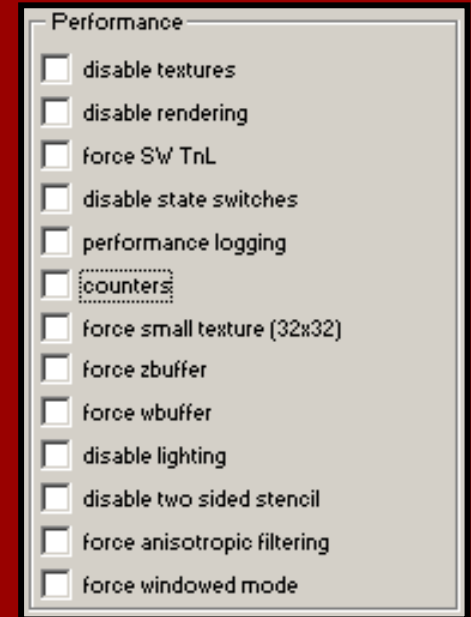
- **disable rendering**

- disable rendering 가
- Lock/Unlock,

?

- **disable state switches**

- disable state switches ?



(2)

- **counters**

-
-

over draw after z-test
draw pixels per frame after z-test

- **force small texture**

-

?



(3)

- **disable lighting**
 - `glDisable(GL_LIGHTING)` ?
- **force windowes mode**
- **force wireframe mode**
 - `glPolygonMode(GL_TRIANGLES, GL_WIREFRAME)`
- **force 16 bite zbuffer**
 - `glDepthRangef(0, 1)` ?
- **save shaders to file**

(1)

- performance logging

 - CSV

	<used vram>	<fps>	<pps>	<ppf>	<strst>	<sttxstgst>	<ppc>	<sttx>	<stvp>	<svs>	<sss>
12											
13											
14											
15	9437184	1	264002	264002	19	24	263,475	1001	1	1001	1001
16	9437184	49	12936098	264002	4	0	263,7329	1001	1	1001	1001
17	9437184	50	13200100	264002	4	0	263,733	1001	1	1001	1001
18	9437184	50	13200100	264002	4	0	263,733	1001	1	1001	1001
19	9437184	49	12936098	264002	4	0	263,7329	1001	1	1001	1001
20	9437184	50	13200100	264002	4	0	263,733	1001	1	1001	1001

used vram

()

fps

(?)

pps

(/

(?)

(2)

ppf	/
(가 ?)
strst	SetRenderState /
sttxstgst	SetTextureStageState /
ppc	DrawPrimitive
(가 ?)
sttx	SetTexture /
stvp	SetViewport /
svs	SetVertexShader /
sss	SetStreamSource /

(1)

- - * disable texture , force small texture
 - (DDS)
 - (Mipmap)
 - ()
 - ()
- - * disable rendering 가
 - lock/unlock ,
 - lock read
 - lock D3DLOCK_NOOVERWRITE

(2)

- * FPS , 16 z
- 가
- z write가 z write disable
-
- 가 16 z
- clear가 clear
- /
* log
* wireframe culling

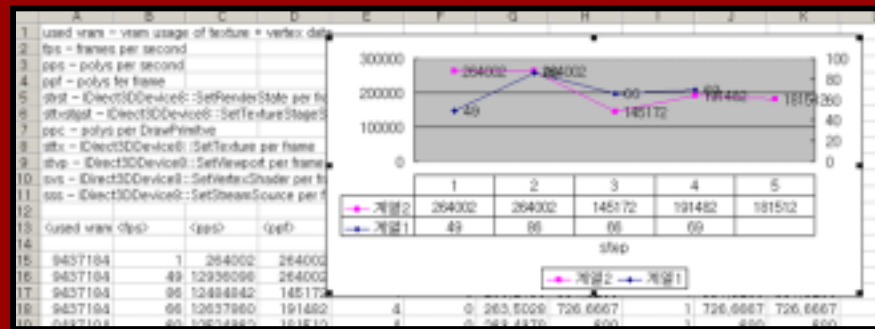
(3)

- - 가 DrawPrimitive
 - lock
 - DrawPrimitive
- 가
 - 가 가
 - 가 가
 - 가

- - -
- - - , DB 가 ()

?

가?



• NVPerfHUD